



Mid-Holocene relative sea-level rise in Northern Java (Indonesia) reconstructed from massive fossil microatolls

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Well-constrained data on the timing and magnitude of mid- to late-Holocene relative sea-level (RSL) fluctuations are required to further improve our understanding of modern and also future RSL changes on local and regional scales. However, published high-precision datasets from central Indonesia, an area that is considered particularly sensitive to future sea-level rise, are rare. This study presents results from a detailed microatoll-survey along the northern coastline of central Java, Indonesia. The study site is characterized by the presence of numerous fossil microatolls, many of which indicate changes in former RSL positions due to their variable elevations above present-day mean sea level. We provide radiometrically calibrated ages and precise elevation information for the individual fossil microatolls and discuss the implications of these new findings with respect to tectonics, eustasy, isostasy and existing sea-level models for the region.